

IN THE CLAIMS

1. (Currently Amended) A method of performing an anastomosis, comprising:

juxtaposing two blood vessels to be anastomosed using ~~an~~ a juxtaposition device, to a desired configuration in which at least one vessel is an end vessel;

applying an adhesive to said vessels while they are in said configuration, said adhesive being sufficient to ensure both sealing and bonding of said two vessels to each other; and

removing said juxtaposition device after said adhesive sufficiently sets;

wherein the juxtaposition device remains primarily external to at least one of the vessels during the juxtaposing.

2. (Canceled)

3. (Currently Amended) A method according to claim 1, wherein juxtaposing comprises inserting ~~at least~~ a portion of said juxtaposing device into at least one of said vessels.

4. (Currently Amended) A method according to claim 1, wherein juxtaposing comprises inserting ~~at least~~ a portion of said juxtaposing device into a wall of at least one of said vessels.

5-17. (Canceled)

18. (Original) A method according to claim 1, wherein applying comprises applying using a plurality of nozzles arranged in a ring.

19. (Original) A method according to claim 1, wherein applying comprises applying into a mold adjacent said anastomosis area, which mold shapes the adhesive about said area.

20. (Canceled)

21. (Original) A method according to claim 1, wherein applying comprises applying a pre-measured amount of adhesive.

22-24. (Canceled)

25. (Original) A method according to claim 1, wherein said removing comprises removing before said adhesive sets completely.

26. (Original) A method according to claim 1, wherein said removing comprises removing as soon as said adhesive starts to set.

27-28. (Canceled)

29. (Original) A method according to claim 1, wherein no foreign materials other than said adhesive remain in said anastomosis.

30. (Original) A method according to claim 1, comprising providing at least one strengthening element in said anastomosis and leaving said at least one strengthening element permanently in said anastomosis.

31. (Currently Amended) A method of performing an anastomosis, comprising:

attaching at least a first external scaffold element to a first blood vessel;

attaching at least said first external scaffold element or a second external scaffold element to a second blood vessel;

positioning said blood vessels using said at least a first external scaffold element, to a desired configuration;

applying an adhesive to said vessels while they are in said configuration, said adhesive being sufficient to ensure both sealing and bonding of said two vessels to each other; and

removing said at least first external scaffolding element.

32. (Original) A method according to claim 31, wherein said first blood vessel is a side vessel.

33. (Original) A method according to claim 31, wherein said first blood vessel is an end vessel.

34. (Original) A method according to claim 31, comprising mechanically attaching said at least first scaffolding element to said first blood vessel.

35. (Original) A method according to claim 34, wherein mechanically attaching comprises piercing.

36. (Original) A method according to claim 34, wherein mechanically attaching comprises hooking.

37-40. (Canceled)

41. (Original) A method according to claim 31, wherein said at least one scaffolding element comprises a plurality of wires adapted to engage a blood vessel.

42. (Canceled)

43. (Original) A method according to claim 31, wherein said at least one scaffolding element comprises a balloon.

44-50. (Canceled)

51. (Original) A method according to claim 31, wherein removing comprises removing at least one of said at least one scaffolding elements before said adhesive sets.

52-76. (Canceled)

77. (Currently Amended) An adhesive anastomotic system, comprising:

a first blood vessel holder;

a second blood vessel holder adapted to interlock with said first blood vessel holder, such that blood vessels held by said two vessel holders contact; and

an adhesive port on at least one of said first vessel holder and said second vessel holder, said port configured to deliver an adhesive to said contact at an external portion of the contact.

78-81. (Canceled)

82. (New) A method according to claim 1, wherein only one of said vessels is an end vessel.

83. (New) A method according to claim 1, wherein the applying is performed by the juxtaposition device.

84. (New) A method according to claim 77, wherein only one of said vessels is an end vessel.

85. (New) A method according to claim 77, wherein the first blood vessel holder and the second blood vessel holder are each substantially outside their respective blood vessels.